

PDR RID Report

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Document

RID ID	PDR 165
Review	CSMS
Originator Ref	
Priority	1

Section

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Figure Table

Category Name Design-Segment-level

Actionee Project

Sub Category Operations Concept

Subject Fault and performance monitoring definition

Description of Problem or Suggestion:

There is no specified monitoring identified for each production string that is needed for IR-1 and Release A mission operations and further no one group is charged with defining the monitoring needed. Without having specified what needs to be monitored (including frequency of monitoring activity, trigger events, etc.) there is no real way to determine if the CSMS design includes the functionality and performance capability needed.

Originator's Recommendation

Charge someone (group) with defining the monitoring of the end-to-end production string(s) for each mission operation (e.g., TRMM product X).

[Note: by "production string" I mean receiving all data inputs, producing the output product, archiving the product, entering metadata into the database, etal. or a user (at his client in his host) querying the database, placing an order, ordered data getting processed and sent to the user; that is all components/operations conducted at a DAAC]

GSFC Response by: Dan Marinelli

GSFC Response Date 4/7/95

GSFC concurs with HAIS Response.

HAIS Response by: Forman

HAIS Schedule

HAIS R. E. Armstrong

HAIS Response Date 4/4/95

Processing that occurs on individual production strings is visible through Production Plan monitoring for major events (all data available, PGE queued, PGE input data staged, PGE executing, PGE success/failure, etc.) and queue status and position is visible through queue monitoring. A major activity to be performed during the Critical Design phase is the identification of what needs to be monitored and the GUI to accomplish this monitoring.

Although this monitoring will be coordinated across all subsystems, primary responsibility for processing monitoring (production strings) falls to the PDPS development group whereas primary responsibility for tracking a product order ("querying the database, placing an order, ordered data getting processed and sent to the user") falls on the Data Server Subsystem development group. It is assumed that there is overlap between these two functions (data production and data ordering) but that they will be essentially approached differently. Data requests will be monitored and status based on when data will be distributed, which may or may not include waiting for it to be produced. When production is involved, to satisfy subscriptions or on-demand production requests, processing status will be provided to the Data Server to update the data order status. Conversely, production may or may not be associated with any current data orders. Production will be monitored based on predictions of when processing should occur against when it actually occurs.

Production interface monitoring will reflect when data is available from both Ingest and the Data Server. Processing state will be available. And the status of each output product and its metadata will indicate when the Data Server has acknowledged successfully receiving them.

Product request interface monitoring will reflect estimating when a product or product request will be fulfilled. The estimation may be based on production predictions, when processing is required.

In preparing the critical design, ECS will be working with the DAACs and instrument teams to identify "what needs to be monitored." It is not currently expected to vary this monitoring from product X to product Y. A generic approach is anticipated, but individual product requirements will be considered.

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Status **Closed**

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Sponsor **Szczur**

Attachment if any
